CLAIMS

1. An information processing apparatus comprising:

grouping means for organizing delivered contents into groups each constituted by the contents which are given the same group ID for having degrees of similarity higher than a predetermined value regarding a grouping item including at least one attribute item representative of a content attribute;

calculating means for calculating frequency of uses of the contents with respect to each of the group IDs;

generating means for generating user preference information indicating preferences of a user based on the use frequency calculated by said calculating means; and

recommending means for giving content recommendations based on said user preference information generated by said generating means.

2. The information processing apparatus according to claim 1, wherein the grouping attribute constituted by an attribute item indicating a broadcast time slot and by at least one other attribute item is established for said information processing apparatus; and

wherein said grouping means organizes said delivered contents into groups by the established grouping attribute.

63

3. The information processing apparatus according to claim 1, wherein the grouping item constituted by at least an attribute item indicating a broadcast time slot and the grouping item formed by other attribute items are established for said information processing apparatus; and

wherein said grouping means organizes said delivered contents into groups by each of the established grouping items.

4. The information processing apparatus according to claim 1, wherein said grouping means morphologically analyzes constituent items making up said attribute item of said contents, and determines degrees of similarity between constituent items making up said grouping item based on results of the analysis.

5. The information processing apparatus according to claim 1, wherein said generating means does not utilize the use frequency of the group constituted by the contents failing to meet a predetermined condition when generating said user preference information.

6. The information processing apparatus according to claim 1, wherein said recommending means comprises:

determining means for determining whether or not said use frequency calculated by said calculating means

is higher than a predetermined set value; and

setting means for setting a staple flag indicating that the recommended contents have been viewed frequently to said content recommendation information if said use frequency is found higher than said predetermined set value by said determining means.

7. The information processing apparatus according to claim 1, wherein said generating means comprises extracting means for acquiring metadata about the contents constituting the groups of which said use frequency calculated by said calculating means is higher than a predetermined set value, said extracting means further extracting vectors representing an amount of characteristics of said metadata; and

wherein said generating means generates said user preference information based on said vectors extracted by said extracting means.

8. The information processing apparatus according to claim 7, wherein said generating means comprises staple determining means for determining whether or not the contents constituting the groups of which said use frequency is found higher than said predetermined set value correspond to said content recommendation information to which is set a staple flag indicating that

the recommended contents have been viewed frequently; and

wherein, if said staple determining means determines that said contents do not correspond to said content recommendation information carrying the set staple flag, then said extracting means acquires the metadata about said contents and extracts vectors representing an amount of characteristics of said metadata.

9. The information processing apparatus according to claim 7, wherein said user preference information is constituted by a plurality of attributes and by values representing degrees of importance of said attributes.

10. The information processing apparatus according to claim 7, wherein said generating means comprises familiarity setting means for setting degrees of familiarity with said contents based on the use frequency calculated by said calculating means; and

wherein said generating means assigns weights to degrees of importance of said user preference information based on said degrees of familiarity.

11. The information processing apparatus according to claim 7, wherein said generating means comprises:

searching means for searching for contents of which said use frequency is lower than a predetermined value on

66

the basis of a history of uses of said contents; and

special preference information generating means for generating special preference information based on metadata about the contents retrieved by said searching means.

12. The information processing apparatus according to claim 11, further comprising:

first extracting means for extracting vectors representing an amount of characteristics of either said user preference information or said special preference information;

second extracting means for acquiring metadata about the contents broadcast in a predetermined set time slot, and extracting vectors representing an amount of characteristics of said meta; and

calculating means for calculating degrees of similarity between the vectors extracted by said first extracting means and those extracted by said second extracting means;

wherein said recommending means selects a predetermined set number of the vectors extracted by said second extracting means, said vectors being selected in descending order of said degrees of similarity, said recommending means further giving content recommendations

based on the metadata about the selected vectors.

13. An information processing method comprising the steps of:

organizing delivered contents into groups each constituted by the contents which are given the same group ID for having degrees of similarity higher than a predetermined value regarding a grouping item including at least one attribute item representative of a content attribute;

calculating frequency of uses of the contents with respect to each of the group IDs;

generating user preference information indicating preferences of a user based on the use frequency calculated in said calculating step; and

giving content recommendations based on said user preference information generated in said generating step.

14. A recording medium which holds a program in a manner readable by a computer, said program comprising the steps of:

organizing delivered contents into groups each constituted by the contents which are given the same group ID for having degrees of similarity higher than a predetermined value regarding a grouping item including at least one attribute item representative of a content

attribute;

calculating frequency of uses of the contents with respect to each of the group IDs;

generating user preference information indicating preferences of a user based on the use frequency calculated in said calculating step; and

giving content recommendations based on said user preference information generated in said generating step.

15. A program for causing a computer to execute a process comprising the steps of:

organizing delivered contents into groups each constituted by the contents which are given the same group ID for having degrees of similarity higher than a predetermined value regarding a grouping item including at least one attribute item representative of a content attribute;

calculating frequency of uses of the contents with respect to each of the group IDs;

generating user preference information indicating preferences of a user based on the use frequency calculated in said calculating step; and

giving content recommendations based on said user preference information generated in said generating step.

69